

Serial No. 09/891011

- 2 -

Art Unit: 2182

In the claims:

1. (currently amended) A device operative in a communications network having a network node capable of label switched routing, where the device is upstream relative to the network node, comprising:

at least one port operative to ~~exchange~~ receive control plane information ~~with~~ from said downstream network node, including a label information database having mappings between labels and label switched paths ("LSPs") for a link between the device and the downstream network node; and

a memory portion operative to mirror control plane information received from said network node via said at least one port;

~~wherein said control plane information includes a label information database.~~

2. (cancelled)

3. (original) The device of claim 2 wherein said label information database is maintained by said network node, and said device is further operative to synchronize said memory portion with said label information database.

4. (original) The device of claim 3 further operative, following failure of a control plane communication link between said device and said node, to transmit said mirrored control plane information to said node.

5. (original) The device of claim 4 further operative, following failure of the control plane communication link between said device and said node, to update said memory portion with the intersection of said transmitted mirrored control plane information and the control plane information maintained by said network node.

Serial No. 09/891011

- 3 -

Art Unit: 2182

6. (original) The device of claim 1 further including a plurality of memory portions, each operative to mirror a label information database for a particular link.
7. (currently amended) A communications network, comprising:
a first device having a first memory and a first port;
a second device, upstream relative to the first device, having a second memory and a second port operative to exchange information with said first port associated with said first device via a communication link, a portion of said second memory operative to store control plane information,
wherein said second device is operative to transmit at least a portion of said control plane information to said first device, and said first device is operative to receive said control plane information and store said received control plane information in said first memory,
wherein the mirrored control plane information includes a label information database.
8. (cancelled)
9. (original) The communications network of claim 8 wherein the label information stored in said first memory is synchronized with said corresponding label information stored in said second device.
10. (original) The communications network of claim 9 wherein, following a control plane failure, said first device is operative to transmit said label information stored in said first memory to said second device.
11. (original) The communications network of claim 10 wherein, following receipt of said label information by said second device, said second device is operative to compare said received label information with corresponding label information remaining in said second memory.

Serial No. 09/891011

- 4 -

Art Unit: 2182

12. (original) The communications network of claim 11 wherein following comparing said sets of label information, said second device is operative to employ the intersection of said sets of label information for communications on the corresponding link.

13. (original) The communications network of claim 12 wherein said second device is further operative to provide the intersection of said sets of label information to said first device.

14. (original) The communications network of claim 13 wherein said first device is operative to update said first memory by storing the intersection of said sets of label information transmitted from the second device.

15. (currently amended) A method for facilitating recovery from a control plane failure in a communications network having a first device and a second device in communication via a link, wherein control plane information is maintained by said second device, comprising the steps of:
transmitting, by said second device, said control plane information upstream to said first device;
receiving, by said first device, said control plane information from said second device; and
storing said control plane information by said first device for facilitating recovery from a control plane failure,
wherein the control plane information includes a label information database.

16. (original) The method of claim 15 including the further step of synchronizing said control plane information stored by said first device with said control plane information maintained by said second device.

17. (original) The method of claim 16 including the further step of, following control plane failure, determining the intersection between entries in said control plane information maintained by said second device and said control plane information stored by said first device.

Serial No. 09/891011

- 5 -

Art Unit: 2182

18. (original) The method of claim 17 including the further step of updating said control plane information maintained by said second device and said control plane information stored by said first device with said intersection of control plane information.

19. (original) The method of claim 18 including the further step of said first device and said second device employing said intersection of control plane information to transmit data via said link.